NEW

Introducing
3 New Scan Converters

BrightEye Mitto 3G Scan Converter
BEM-1

YouTube™ and Skype™ Video Made Easy

The BrightEye Mitto™ family of high performance scan converters provide a new way to take just about any source to 3G, HD or SD SDI video. Computer video can now be used for the most demanding applications including high-end military, medical, classroom, broadcast, church and corporate. All Mitto units accept VGA, DVI and HDMI input signals from PC and Mac computers.

Choose the Functionality You Need

Four different BrightEye Mitto units, each with varying types of outputs and capabilities, allow you to choose the best unit for your particular video application. All BrightEye Mitto units convert YouTube™, Skype™ video, weather radar, viewer emails and maps to video. Just a small part of the screen, such as a Skype window, can be selected with a mouse and converted to full screen HD. Ensemble uses the latest technology in its proprietaryupconversion and filtering and that means you have the best looking video.

- High Performance Scan Converter for PC and Mac
- Best way to bring YouTube™, Skype™, Weather Radar, Maps and Emails to Video for Production Use
- iPhone and iPad Interface – Realtime iPhone to SD/HD/3G
- Superior Quality– Proprietary Scaling and Filtering System Provides Maximum Detail, Flicker-Free Video Output
- Intuitive Front Panel Controls
- Easy-to-use Mac and PC User Interface
- Output Choices: 1.5 and 3 Gb/s HD, SD SDI, Composite Video, Fiber
- DVI I/O, VGA and HDMI Support with an Adapter
- Use a Mouse to Select the Part of the Video You Want to Output
- Easily Adjust Video Parameters and Select Video Output Format
- Genlock and Time to House Reference, Fully Timeable
- Adjustable Audio Delay
- Rackmountable
- Memory Presets for Your Favorite Settings
- 5-Year Warranty and Free Software Upgrades
- Choose from 4 different BrightEye Mitto Models to get the Perfect Configuration and Price for Your Facility

ENSEMBLE
DESIGNS
www.ensembledesigns.com tel +1 530.478.1830

Four BrightEye Mitto Models to Choose From

Select the perfect combination of features and price for your video facility

	BrightEye Mitto 3G BEM-1	BrightEye Mitto 3G Fiber BEM-1F	BrightEye Mitto HD BEM-2	BrightEye Mitto Pro BEM-3
DVI, VGA, or HDMI inputs	✦	✦	✦	✦
HD or SD video outputs	✦	✦	✦	✦
3 Gb/s video output	✦	✦		
Optical output		✦		
Analog or embedded audio input	✦	✦	✦	✦
AES audio input and output	✦	✦	✦	
Full control of audio levels, channel mixing	✦	✦	✦	
Adjustable audio delay	✦	✦	✦	
RS-232/GPI control	✦	✦	✦	

BrightEye Mitto 3G

BEM-1

BrightEye Mitto 3G Fiber

BEM-1F

BrightEye Mitto HD

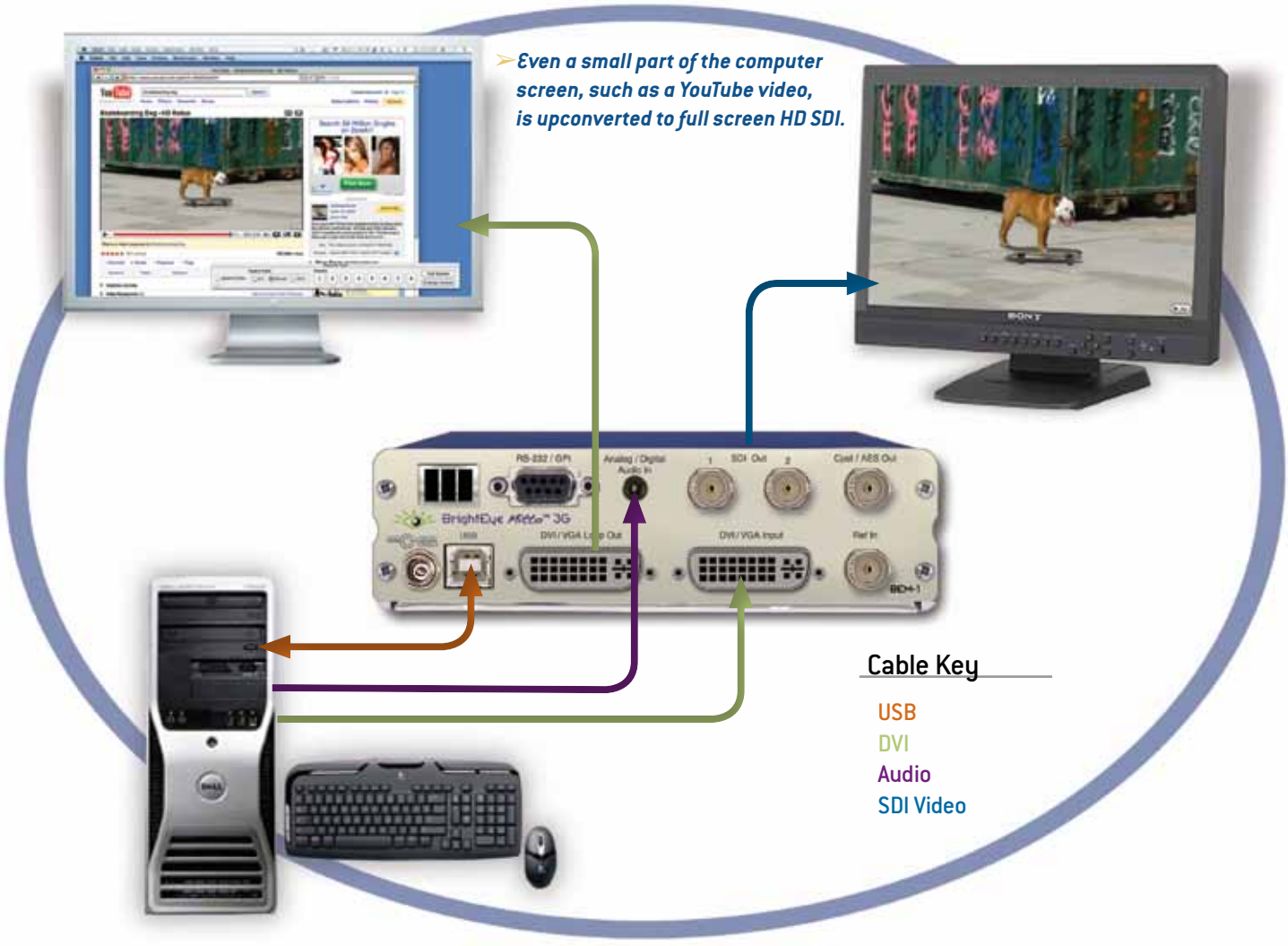
BEM-2

BrightEye Mitto Pro

BEM-3

"Regardless of how quickly we need to take Mitto to air, it works famously every time. And it looks spectacular. When we covered the blizzards last winter, all of our user-generated content submissions and Skype came through Mitto."

~ John Schilberg, VP of Technology, Griffin Communications KWTV, KOTV and KQCW


Even a small part of the computer screen, such as a YouTube video, is upconverted to full screen HD SDI.
Cable Key
USB
DVI
Audio
SDI Video

TV Technology STAR 2010 Broadcast Technology Award Recipient

Pick Hit BroadcastEngineering 2009

TV Technology STAR 2010 Broadcast Technology Award Recipient

TVBEUROPE Editors' Awards Best of IBC2010

BrightEye Mac and PC Software

Adjusting video levels, output timing, audio delay, and mixing audio channels are so easy with BrightEye control software. No DIP switches or button hold-downs are needed.

From the software you also have complete and intuitive control of timing, video format, and video level adjustments. You can easily time BrightEye Mitto into a video production switcher or router.

Use BrightEye Mac or PC software to control a single BrightEye unit or any number of units connected to a USB hub. Additionally, you can use it to upgrade BrightEye units as new software versions become available. BrightEye Mac and PC software are included with each unit at no charge. Updates are free.

Use Your Mouse To Select What Will Be Output To Video

BrightEye™ PC and BrightEye Mac software let you simply use your mouse to click and drag over the specific portion of computer video that you want to output. The beauty of this user interface is that you can see which parts of the screen you don't want to output, as well as the parts you do want to use. The perspective of seeing the whole screen gives you the ability to choose exactly which portion of the video you want to output. It's easy to output the entire screen or just a selected portion.

Easy To Use

BrightEye PC/Mac software runs overtop of any video, website or software. The Selection Tool shows up as a black box around your selection and shows the portion of the video that will be output from BrightEye Mitto.

Resize the selection window by clicking and dragging with your mouse. Mitto's video output automatically goes to pillarbox or letterbox as needed. Mitto automatically maintains perfect aspect ratio.

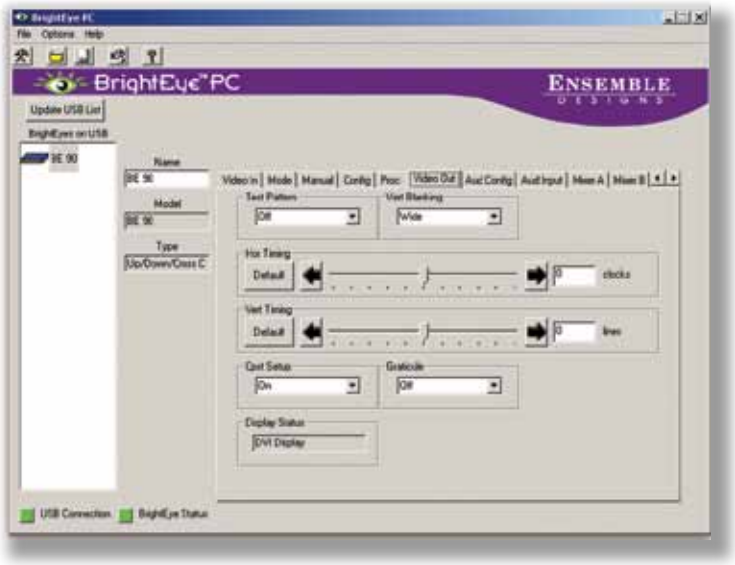
Free Software Upgrades Forever

BrightEye Mitto's software is easily upgraded through the unit's USB port. Software upgrades are available at no charge for the life of the product and are conveniently downloadable from the Ensemble Designs' web site. Every unit comes with a five-year warranty.

Used Worldwide

Their compact size lets you put conversion right where it's needed: in a remote truck, at a live venue, on a helicopter, in a production, or in a TV station. Reliable and easy to install, BrightEyes make your transition to HD simple. And they're affordable, too!

PC Screen Shot



Mac Screen Shot

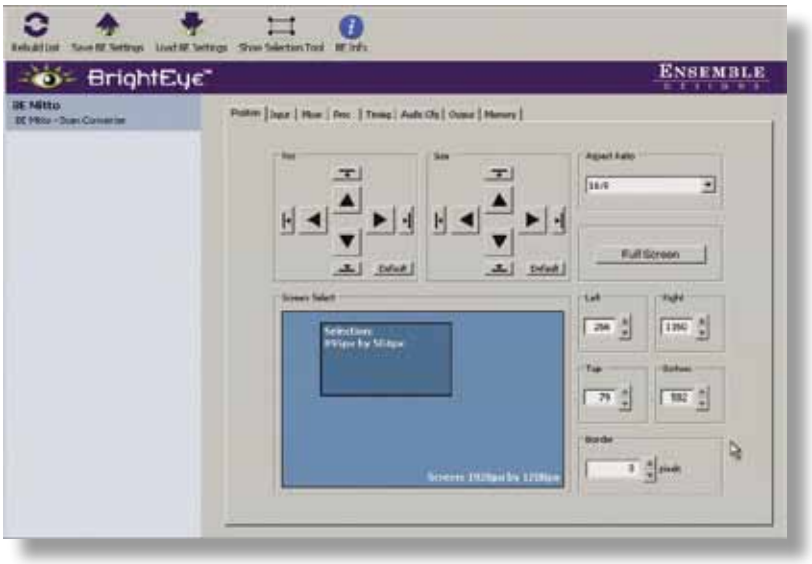
Exclusive Filtering and Scaling Technology

A superior quality scan converter, BrightEye Mitto has the advantage of proprietary scaling technology and exclusive multi-tap filtering. Even a small part of the computer screen, such as a YouTube video, will be upconverted to full screen HD. The filters automatically adjust in accordance with the conversion being performed. The region selected for output determines if Mitto acts as an upconverter or downconverter. The filters automatically adjust in accordance with the conversion being performed. The result is that the output looks as good, or better, than the original and passes the most stringent testing.

Digital and Analog Video and Audio

The intuitive front panel interface makes it easy to choose the desired video output format. The genlock reference input allows the video outputs to be timed to house.

The audio input accepts analog audio. AES is optional. Audio is embedded into the SDI outputs which is required for many high-end applications.

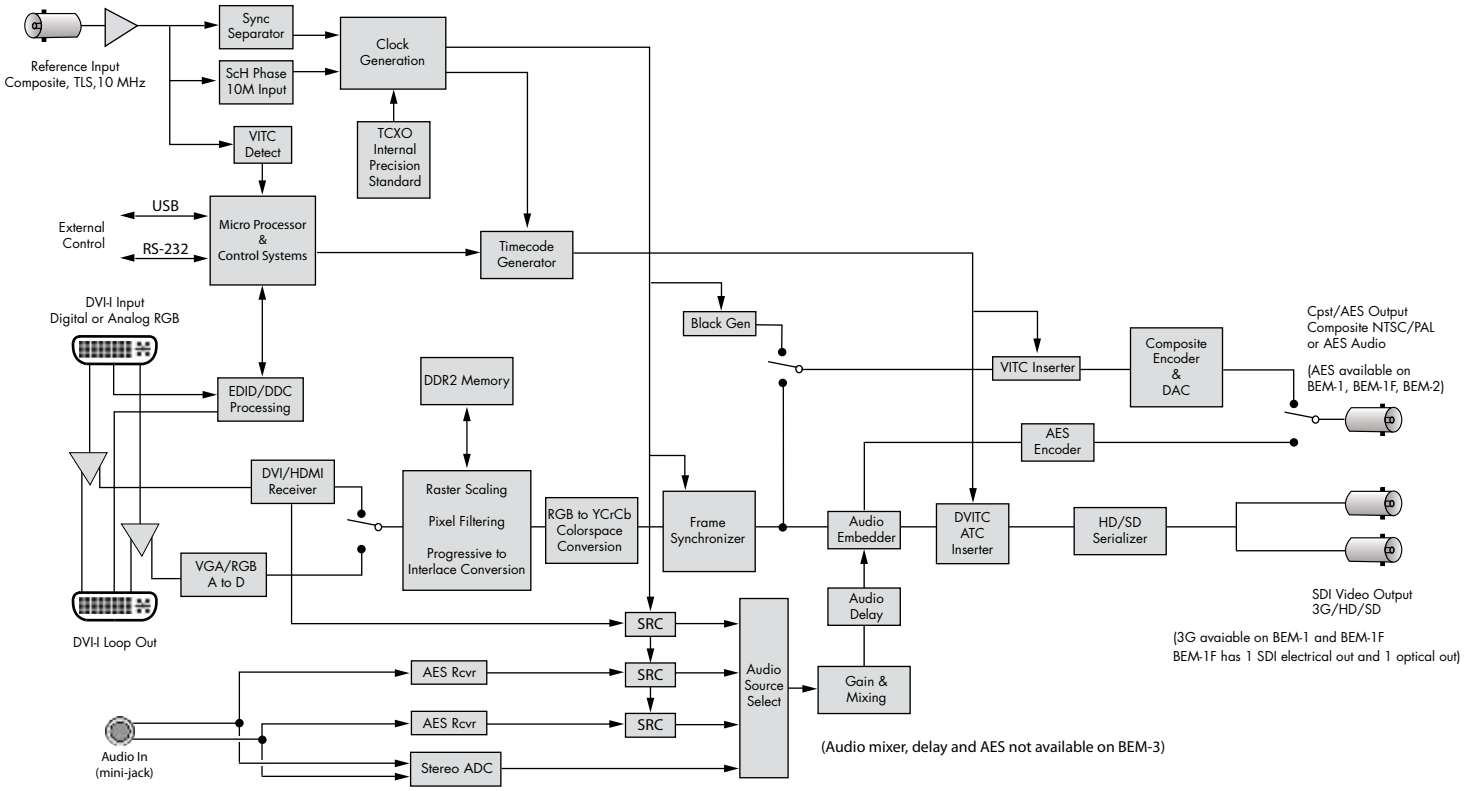


BrightEye PC and BrightEye Mac software provide complete and intuitive control of the BrightEye Mitto including handles for timing, video format, and video level adjustments.

Click the Selection Tool button in BrightEye Mac or PC to bring up the Selection Tool.

Click and drag to move and resize selection

Output Full Screen SD or HD SDI Video



Order Info

BEM-1	BrightEye Mitto 3G
BEM-1F	BrightEye Mitto 3G Fiber
BEM-2	BrightEye Mitto HD
BEM-3	BrightEye Mitto Pro

Comes with 1 USB cable, 2 VGA to DVI adapters and BrightEye Software for Mac and PC.

Mitto Defined:

- Comes from the Latin root for ***transmit*** or ***send***
- It's also the root word of ***uncompromising***

Computer Input

Number	One
Type	DVI (Supports HDMI or VGA with adapter)
Connector	DVI-I
Resolution	Up to 1920 x 1200

Reference Input

Number	One, BNC
Type	1 V P-P Composite Video PAL, NTSC, Tri-Level Sync
Impedance	75 Ω
Return Loss	>40 dB

Note: When no reference is provided, Mitto runs from an internal "sync gen grade" precision frequency reference.

Analog Audio Inputs

Number	One stereo pair
Connector	1/8" mini jack
Impedance	>15K Ω
Max Input Level	24 dBu
Quantization	24 bits, 128 x oversampled
Sample Rate	48 KHz
Reference Level	-10 dBu or +4 dBu
Frequency Response	±0.1 dB, 20 Hz to 20 KHz
Crosstalk	<106 dB
Dynamic Range	>106 dB

AES/EBU Digital Inputs (BEM-1, BEM-1F, BEM-2)

Number	Two (four channels)
Type	AES3id, S/PDIF
Connector	1/8" mini jack
Bit Depth	20 and 24 Bit
Sample Rate	30 KHz to 192 KHz (Sample Rate Converted Internally to 48KHz)

Serial Digital Output

Number	Two, BNC One for BEM-1F
Signal Type	1.485 Gb/s HD, 270 Mb/s SD SDI 2.97 Gb/s HD (BEM-1, BEM-1F only)
Processing	16 bit processing 12 and 14 bit upconversion
Delay	Adjustable from 16 msec to 40 msec

Note: Output is fully timeable with respect to the reference input.

Audio	Embedded
Impedance	75 Ω
Return Loss	>15 dB to 1.485 GHz >10 dB to 2.97 GHz
Output DC	None (AC coupled)

SDI Standards Supported

1080i (SMPTE 274M -4,5,6) 50, 59.94 or 60 Hz
720p (SMPTE 296M -1,2,3) 50, 59.94 or 60 Hz
525i, 625i (SMPTE 259M)

BEM-1 and BEM-1F also support:
1080p (SMPTE 274M -9,10,11) 23.98, 24, 25 Hz
1080sF (RP211 -14,15,16) 23.98, 24, 25 Hz
3 Gb/s Level A or Level B (SMPTE 424M, 425M)

Optical Output (BEM-1F)

Number	One, LC/UPC
Type	Follows SDI configuration
Wavelength	1310 nm (non-CWDM) Wavelengths 170 nm –1610 nm at 20 nm CWDM spacing available. Call factory for price and details.
Power	-7 dBm
Max Cable Length	20 km (For greater distances, or higher power and larger loss budgets, please contact the factory)
Fiber Type	Single Mode Multi-mode compatible with 8 dB attenuation at transmit end

Analog Video Output

Number	One, BNC
Type	Composite PAL or NTSC (when SD is selected on the SDI output)
Return Loss	>40 dB
Output DC	<100 mV

Computer Monitor Output

Number	One, looping
Type	DVI (Supports HDMI or VGA with adapter)
Connector	DVI-I
Format	Follows input

Control

Number	One
Connector	9 pin D
Type	RS-232, GPI

General Specifications

Size	5.625" W x 1.7" H x 5.5" D (143 mm x 20 mm x 140 mm) including connectors
Weight	1 lb 6 oz
Power	12 volts, 12 watts (100-230 VAC modular power supply not included)
Temperature Range	0 to 40° C ambient
Relative Humidity	0 to 95° non-condensing

Who is Ensemble Designs?

By Engineers, For Engineers

In 1989, a former television station engineer who loved designing and building video equipment, decided to start a new company. He relished the idea of taking an existing group of equipment and adding a few special pieces in order to create an even more elegant ensemble. So, he designed and built his first product and the company was born.

Focused On What You Need

As the company has grown, more former TV station engineers have joined Ensemble Designs and this wealth of practical experience fuels the company's innovation. Everyone at the company is focused on providing the very equipment you need to complete your ensemble of video and audio gear. We offer those special pieces that tie everything together so that when combined, the whole ensemble is exactly what you need.

Notably Great Service for You

We listen to you – just tell us what you need and we'll do our best to build it. We are completely focused on you and the equipment you need. Being privately held means we don't have to worry about a big board of directors or anything else that might take attention away from real business. And, you can be sure that when you call a real person will answer the phone. We love this business and we're here to stay.

Bricks and Mortar of Your Facility

The bricks and mortar of a facility include pieces like up/downconverters, audio embedders, video converters, protection switches, routers and SPGs for SD, HD and 3Gb/s . That's what we're focused on, that's all we do – we make proven and reliable signal processing and infrastructure gear for video facilities worldwide, for you.

BrightEye — palm sized video and audio conversion, HD up/down conversion, scan conversion, and test signal generators with 3G, HD, SD, ASI video, audio and optical choices.

Everything is made at our factory in Nevada City, California.

Shipped with care to television broadcasters and video facilities all over the world.

Come on by and visit us.
Drop in for lunch and a tour!

And consider our Avenue product line when you need a modular system.

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Due to ongoing product development, all specifications are subject to change.

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